

Title (en)  
SILICON SPIRAL SPRING FOR A MECHANICAL WATCH

Title (de)  
SILIZIUMSPIRALFEDER FÜR EINE MECHANISCHE UHR

Title (fr)  
RESSORT SPIRAL EN SILICIUM POUR MONTRE MECANIQUE

Publication  
**EP 2707777 A1 20140319 (FR)**

Application  
**EP 12719402 A 20120509**

Priority  
• CH 7842011 A 20110509  
• EP 2012058574 W 20120509

Abstract (en)  
[origin: WO2012152843A1] Disclosed is a spiral spring for a mechanical watch, said spring comprising more than 500 through-holes or blind holes (10) and a spiral-shaped coiled silicon leaf that has an oxidizable surface in contact with air. The leaf is shaped such that the area of the oxidizable surface is at least 1.1 times, preferably at least 1.5 times, the area of a rectilinear convex hull of the leaf. The spiral oscillates at a frequency of at least 25 Hz, preferably at least 50 Hz, and can be oxidized quickly because of the holes (10) that it contains. In a preferred variant, there are more than 1000 holes (10).

IPC 8 full level  
**G04B 17/06** (2006.01)

CPC (source: CH EP)  
**F16F 1/10** (2013.01 - CH); **G04B 17/066** (2013.01 - CH EP); **G04B 17/227** (2013.01 - CH EP)

Citation (search report)  
See references of WO 2012152843A1

Cited by  
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